Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

The Pest Management Newsletter

News from the Agriculture and Agri-Food Canada Pest Management Centre Vol 2 No 3 winter 2010

How's the Weather?

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The West Coast: The Okanagan Valley

Spring was cold and prolonged in British Columbia's Okanagan region, which quite literally put a damper on early crop development. "The cherry bloom usually comes in April," says Karen Bedford, a PMC principal investigator at the Pacific Agri-Food Research Centre's Summerland site, "but this year it was in early May. The technician in our cherry and apple breeding program said he'd only seen this happen once in more than 20 years. So while we've had springs similar to this one, they've been very rare."

Later in the season, fortunately, the weather improved. This was especially important for the Okanagan's cherry growers, whose crop is the basis of a highly profitable export industry. One problem for these growers during the 2009 harvest was a shortage of helicopters, which were busy fighting forest fires; the machines are used to blow rainwater off the fruit, which might otherwise split. But the harvest turned out reasonably well anyway, with large crops of cherries and apples. The improved weather also allowed the Minor Use Pesticides Program (MUPP) team in Summerland to carry out their field trials as they'd planned, and they didn't see any unusual changes in the incidence of pests or diseases.

Summer squash trial at the Pacific Agri-Food Research centre in Agassiz, British Columbia

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The West Coast: The Fraser Valley

"We had a very strange growing season in the Fraser Valley," says Mark Sweeney, a berry industry specialist with British Columbia's provincial government. "It began with an unusually cold winter and record snow, and after that came the coldest spring we'd ever seen. The crops were further behind than anyone could remember."

But May and June turned out warmer and drier than usual, and the strawberry harvest actually came in at the normal time. Then the warming trend persisted, and 2009 ended up having the hottest, driest summer on record. The result was a very condensed harvest season for many crops — blueberries, for example, came on so fast that the packing plants couldn't keep up with them.

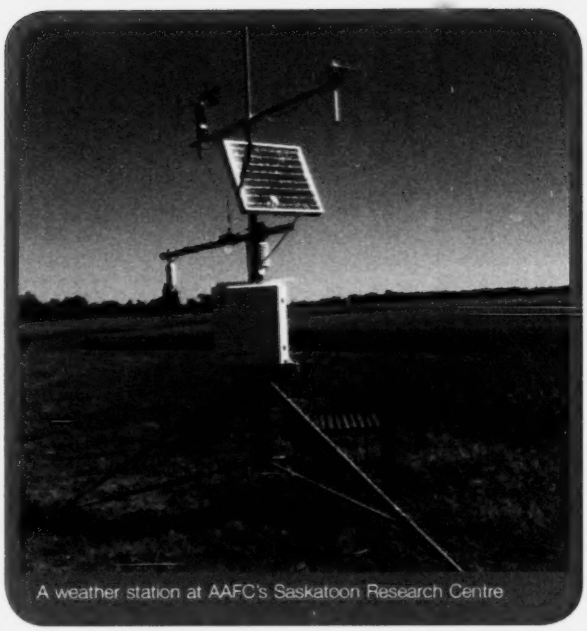
"It was generally a good production year for growers in the Fraser Valley," says Sweeney. "Because it was drier than usual, disease pressure wasn't as high as it would typically be. That was a challenge for disease research, though, since the biggest problem when we're doing field trials is finding our target pests, and sometimes you have to find ways to adapt. In one of the trials for raspberry root rot, for example, we didn't get any disease because of the dry weather, so the trial is being redone in the fall, hopefully under higher disease pressure.

The Prairies

Early 2009 brought unusual weather to some parts of the Prairies. In Saskatchewan, the Scott Research Farm and areas to its northwest saw normal snow cover during the winter, while to the southwest there was less snow than usual. Spring was also a challenge. "Here at Scott," says weed biologist Eric Johnson, "we had about half our normal precipitation during May and June. It was a dry, cold spring and the cool weather continued into June, with frosts across the province. Crops emerged very slowly as a result."

Rainfall picked up as the growing season progressed, although mean temperatures were still a degree below the average. Crop maturity remained a concern until late summer, but September was unusually warm and by mid-autumn the harvest was in full swing.

The cold, dry spring adversely affected some of the Scott field trials. Some crops had to be reseeded because of the late frosts, and irrigation, where available, was used to make up for the dry conditions. The inclement spring weather also made the timing of weed efficacy trials more difficult; the plants emerged more slowly than usual, and the above-average rainfall later in the season



A weather station at AAFC's Saskatoon Research Centre

caused an unaccustomed growth spurt. Insect and disease problems were similar to other years, leaving the weeds as Scott's major pest problem for 2009.

Central Canada: Ontario

In Ontario's Niagara region, May and August were as warm as usual, but June and July saw temperatures of 3 to 4 degrees below the 10-year average. As for rainfall, there was twice the normal amount in April, June and August. This was a headache for the researchers at AAFC's Vineland research station.

"We're very reliant on the weather," says Vineland biologist Mitch Pogoda, "because so many of our trials are timed according to pest development or crop development, or both. We couldn't even do some trials this year, since the cold kept the targeted insects from emerging at the predicted normal times when the damage to crops occurs. Conversely, other pests prefer wet and cool conditions, and with some of these — such as apple scab — it was almost impossible for us to keep a clean control."

The unusual weather increased pest pressures all across the Niagara region. The Oriental fruit moth and grape berry moth normally have several discrete generations during the growing season, but 2009's weather made them overlap. This made it much harder for farmers to time their spraying, and for the Vineland

PMC researchers to time their trials. Weeds grew continuously instead of dying back in the heat of August as they usually do, and the cool weather aggravated diseases such as fire blight and powdery mildew. "Our growers had to be especially vigilant with their spray programs," says Pogoda, "and they had to spray more often because the rain kept washing the pesticides right off the crops."

Central Canada: Quebec

Quebec had record-breaking cold in January, which damaged highbush blueberries, grapevines and strawberry fields. May saw more frost across the province, with some strawberry growers reporting eight nights of freezing temperatures during the month. And the weather didn't improve as summer arrived. "May, June, July and the first week of August were cool and wet," says Bruno Gosselin, an agronomist with the provincial government's Phytosanitary Advisory Network. "This was ideal for disease development, and producers were forced to use fungicides more often than usual. Fortunately, the second week of August saw much better conditions and much less precipitation."

The improvement was too late to avert a disastrous raspberry season, and growers in the wettest areas reported losing up to half their crop. Grape yields were much lower this year because of frost damage to flower buds, poor pollination caused by heavy rainfall and lack of sunlight and warmth. The wet conditions made apple scab hard to control, and caused widespread mildewing in potato crops.

Vegetables got off to a slow start because of the abnormal spring, but the harvest wasn't drastically affected, and most highbush blueberry growers ended up with average yields. The major problem caused by the unusual weather was the increased levels of disease, rather than weeds or insects.

The Maritimes: Nova Scotia

Julia Reekie is a PMC test site manager who specializes in organic apple production at the Kentville AAFC station in Nova Scotia's Annapolis Valley. "April 2009 was wet compared to the average," she says, "while May was drier. In June there were 18 days of drizzle, and July was wetter than usual, too. The August rainfall average was high because we had two drenching tropical storms. Temperatures didn't vary much from normal, although April and May were warmer and July was slightly cooler."

"We had snow on the ground in the first three months of this year," she adds. "It was still around in early April, which made it difficult to prune our research orchard apple trees, and apple growers were having similar problems. But we set up a lot of our trials in May, and these weren't affected by the weather."

Apple scab incidence was close to normal despite the soggy weather, although Reekie thinks there might have been more fire blight than in the previous year. The weather may also have had a slight effect on the incidence of two insects, especially European red mites: 80 percent of the mite eggs in one research orchard had hatched by May 20, which was earlier than normal. Green aphids lingered on into July, possibly because of the lower-than-average temperatures.

Nova Scotia's blueberry farmers were less fortunate than its apple growers. "The wet, cool summer really affected us," says Gary Brown of the Wild Blueberry Producers Association of Nova Scotia. "It fostered a lot of disease, especially leaf spot, which reduced yields all over the province. It also added to the weed pressure, because our currently registered herbicide breaks down rapidly if there's a lot of moisture in the soil."

The Wild Blueberry Producers Association supports a number of blueberry research chairs at the Nova Scotia Agricultural College and works with them to carry out pesticide screening trials and other research. The trials are carried out in growers' fields throughout the Maritimes, and the high incidence of disease in Nova Scotia's blueberry fields during 2009 actually contributed

to their success. "There was so much disease pressure," says Brown, "that we could tell for sure whether a trial had succeeded or not. One example was a trial that was selected at the PMC's Minor Crop Priority Setting Workshop last year, for a new product for monilinia blight, and it worked out very well."

To put it in all a nutshell, pest and crop development often varied from the norm due to 2009's unusual weather. In the Prairies, the cool dry spring delayed crop growth but also reduced weed pressure. Elsewhere in the country, some pests were able to thrive, especially in areas with heavy rainfall where disease pressure was high. Researchers monitored developments closely and adapted their trials according to the best information available.

What this variability might mean in a larger context, however, is ambiguous. Weather isn't climate, and variations like those of 2009 don't necessarily reflect a changing global environment — although they may be doing just that. But no matter what strange weather confronts us, farmers still have to find ways grow our food, and the PMC will be there to help them do it.

Happy Hundredth

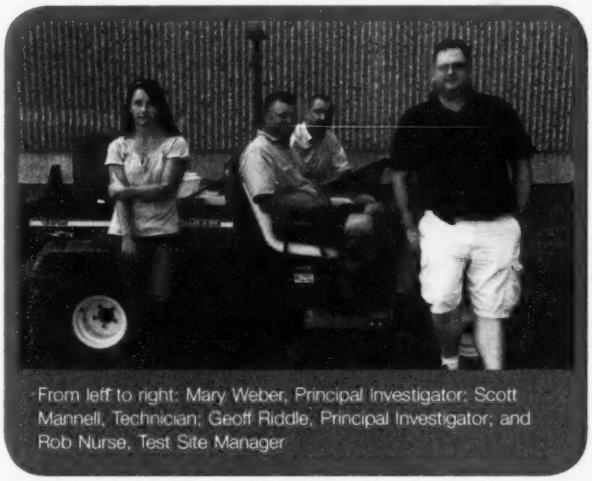
In 2009, AAFC's Greenhouse and Processing Crops Research Centre (GPCRC) celebrated its 100th anniversary. Located at Harrow in southern Ontario, the Centre began life as a tobacco research station, but because of the region's long growing season, it has evolved into the largest greenhouse research facility in North America.

Besides research greenhouses, the GPCRC operates two field sites, one on sandy soils at Harrow itself, and the other on clay-loam soils at the Honourable Eugene F. Whelan Experimental Farm near Woodslee, Ontario. The Research Centre's unique location and facilities allow its researchers to grow a wide range of vegetable and field crops, including several varieties — such as sugar beets and processing tomatoes — that are viable in only a few regions of Canada. Most of the research focuses on plant breeding, pest management and crop productivity, and on soil, water and air quality.

The Centre is also the location of one of the PMC's MUPP test sites, which is staffed by a five-person research team. Dr. Robert Nurse is the test site manager, and the two principal investigators are Mary Weber-Henricks and Geoff Riddle. Technical support is provided by Scott Mannell and Roy Paine.

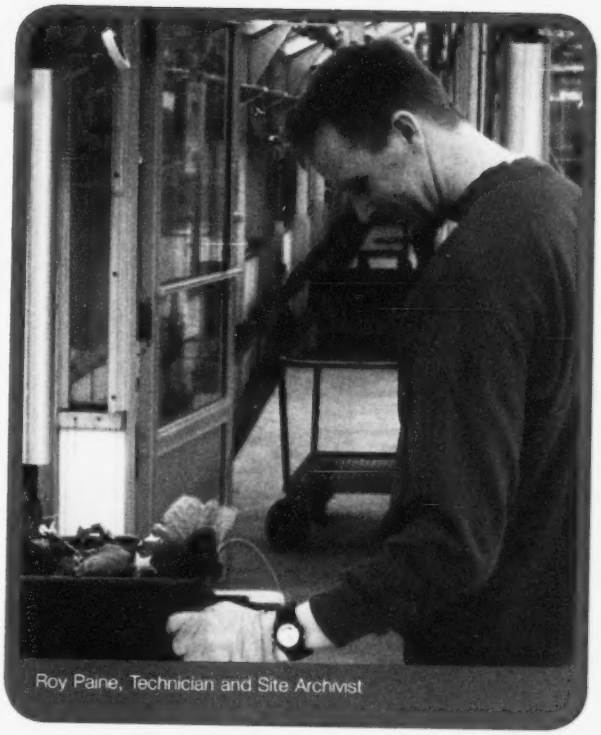
Field trials account for about 50 percent of the MUPP team's work at the Harrow site, which has 139 ha of sandy loam soils with good drainage and high fertility. When necessary, the team also has access to 78 ha of heavier clay soils at the Whelan Experimental Farm, about 30 minutes away. This flexibility means that the team can collect data on many different kinds of low-acreage field crops, ranging from mustard greens to organic soybeans.

The other 50 perent of the MUPP team's work focuses on greenhouse trials, which are conducted in an enormous facility that puts seven-tenths of a hectare under glass. The trials deal primarily with tomatoes, cucumbers and peppers, since these are the region's major greenhouse crops, but the team also conducts efficacy research on greenhouse ornamental varieties. The greenhouses themselves are modern and fully equipped, allowing the team to carry out research that meets the most stringent commercial standards.



From left to right: Mary Weber, Principal Investigator; Scott Mannell, Technician; Geoff Riddle, Principal Investigator; and Rob Nurse, Test Site Manager

Greenhouse cucumber residue trial



Roy Paine, Technician and Site Archivist

The agricultural region around the Centre is also home to Canada's highest concentration of commercial greenhouse and tomato-processing operations, many of which are in the nearby municipality of Leamington. This close proximity allows the MUPP team to cooperate with commercial growers, who can accommodate larger trials than are possible at the research site itself.

In 2002, the Centre received its Good Laboratory Practices (GLP) certification, making it one of the first MUPP locations authorized to perform pesticide residue trials. To date, the Harrow team has generated data for 144 projects that contributed to 17 new minor use registrations. Data generated at the research stations have also contributed to 25 regulatory submissions, and these submissions may also result in further minor use registrations that will give Canadian growers new tools for pest control.

Growing Forward

In early 2009, the federal and provincial governments agreed on the new Growing Forward initiative, a renewed commitment to the Canadian agricultural sector. During the next five years, governments will invest $1.3 billion in Growing Forward programs designed to help our agricultural sector become more competitive and innovative, manage risk more effectively, and contribute to the health and well-being of Canadian society.

One component of Growing Forward is the federal Agricultural Regulatory Action Plan, which ensures that the regulatory environment promotes sector innovation, investment and competitiveness. The resources available under the Plan will help increase grower competitiveness by addressing regulatory challenges related to new technologies for veterinary drugs, health claims, novel foods, new food ingredients and minor use pesticides, all while maintaining health and safety standards.

The PMC and its role

The success of the Minor Use Pesticides Program and the support of Canadian growers were instrumental in obtaining renewed funding under the Regulatory Action Plan. The PMC will continue to work with stakeholders to:

- match pest problems with minor use pesticide solutions;
- develop strategies and associated action plans to reduce the risk of pesticides to human health and the environment;
- generate data on pesticide efficacy and residues, and on crop tolerance to pesticides; and
- prepare submissions for new minor uses.

The Action Plan will thus help the PMC do its part for the Canadian agricultural sector by providing speedier, more efficient access to new pest management tools and technologies.

Needlecast: An Emerging Pest

If the current year's growth on a coniferous tree is made up of healthy needles, but the needles of previous years have turned reddish brown or are even dropping from the branches, you may be looking at needlecast disease.

In North America, needlecasts are caused by more than 40 species of fungi, which can infect almost any type of conifer. Certain varieties of spruce, fir and pine are more susceptible than others, so you may see varying levels of needlecasts in forest stands, Christmas tree plantations and nurseries. A serious infection will cause severe defoliation and may kill the affected branches, drastically reducing the growth and aesthetic appearance of the tree. This can turn nursery stocks and Christmas trees into unmarketable brushwood.

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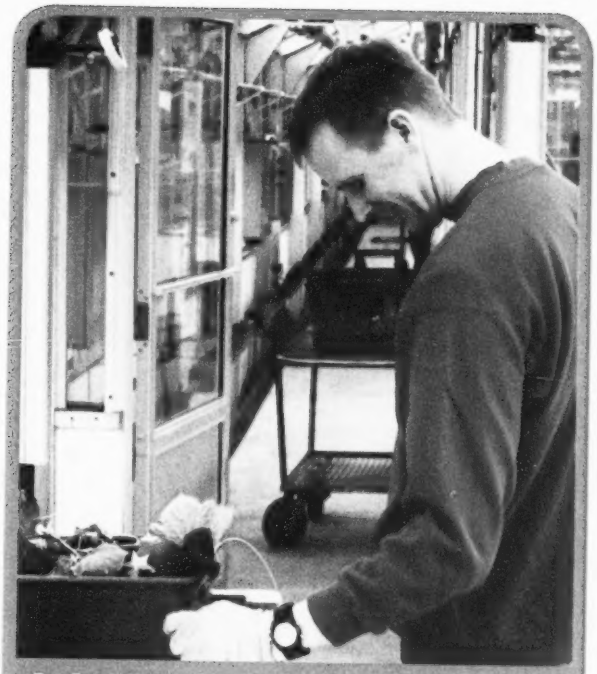

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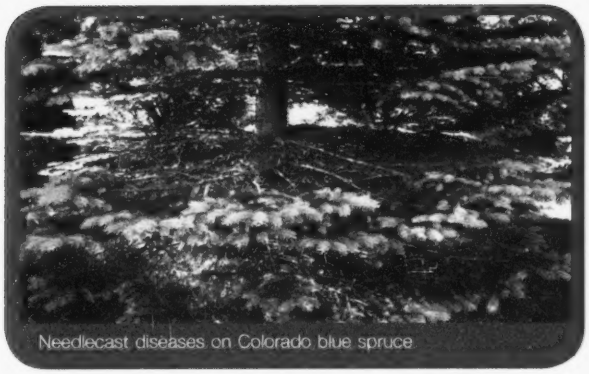

Needlecast diseases on Colorado blue spruce

Wet weather, high moisture levels and poor air circulation favour the spread of needlecast fungi, most of which have similar life cycles. They over-winter in infected needles on trees or in the ground, and when the weather warms up in spring, the fungus's fruiting bodies begin releasing spores. These can be carried from place to place by splashing water, wind and mechanical means.

The spores infect the current year's needles, but cause no disease symptoms until the following growing season. At that point, brown spots appear on the needles and spread until they completely cover the needles' surfaces, often by mid-summer. Many needlecast fungi produce fruiting bodies that release spores in the second year, while others wait until the third year of infection.

Needlecast prevention and control requires both mechanical and chemical means. Mechanical measures include removing weeds at the base of the tree to improve air circulation, collecting and destroying fallen needles, removing severely infected trees and planting resistant stock in areas that favour the disease. Fungicides can also reduce the chance of infection, but it is crucial to apply them during the release of the spores if they are to be fully effective.

Needlecasts have recently become a serious problem for outdoor ornamentals such as Christmas trees and nursery stock. During the PMC's 2007 National Minor Use Priority Setting Workshop, needlecasts were selected as a priority project. However, since no controls are currently registered for the disease, the PMC is now carrying out screening trials of six potential needlecast fungicides. Trials in Nova Scotia are being conducted on balsam fir Christmas trees, and in Ontario on Colorado blue spruce. Most needlecast fungi follow a two-year or even three-year life cycle, so the results of these trials will be available shortly.

AAFC Research Facilities Receive Funds Aimed at Modernizing Labs

Seven AAFC research centres are benefiting from projects aimed at modernizing federal laboratories in Canada. The improvements will support AAFC's research in pest management, plant breeding and dairy cow management, and will help keep AAFC scientists on the cutting edge of research. Ultimately, these improvements will help both Canadian farmers and the industry.

The Modernizing Federal Laboratories Initiative is part of Budget 2009—Canada's Economic Action Plan. In it, the federal government committed to an accelerated investment program to provide $250 million over the next two years to address deferred maintenance at federal laboratories.

Two AAFC Research Centres are among the laboratories to receive funding:

The Horticulture Research and Development Centre in St-Jean-sur-Richelieu, Quebec, will invest $350,000 in modernizing its pesticide testing laboratory. These lab improvements will support the work done in St-Jean under the PMC's Minor Use Pesticide Program.

The Potato Research Centre in Fredericton, NB will receive $500,000 for the construction of a new potato gene facility that will enhance potato research capabilities. The retrofitted building will store the country's entire range of potato types, from newly developed to heritage varieties. This repository will meet international standards by providing a controlled climate and the required space and security. Researchers will be able to avail themselves of the samples in the repository to develop improved new varieties for target markets, for pest control, soil and water management, and for potato genomics and processing.

The Fight Against Emerging and Resistant Diseases

When Valdensinia leaf spot devastated blueberry crops in Nova Scotia in 2009, there was little that growers could do to defend themselves. There is currently no tested fungicide to eradicate the disease, and all a

grower can do is keep people and machinery out of infected areas so it can't spread by mechanical means.

It's in situations like this, when growers badly need new controls for emerging pests, that the PMC's vital role comes to the fore. Every March, it holds the Minor Use Priority Setting Workshop in Ottawa, where PMC staff, growers, researchers and pesticide company representatives meet to select the following year's regulatory projects.

If a pest is becoming extremely prevalent and destructive, the Provincial Minor Use Coordinators and grower groups may already have selected high-priority projects to deal with it, and these priorities may be used to guide the decisions that are taken at the March workshop. Rarely, however, does a priority project lead to a quick fix for the pest in question, since field trials, data collection, data analysis and the registration of a product can take several years. Often, as well, there may not be a proven product for an emerging disease. This is why the PMC has started to screen products for grower-prioritized, emerging threats, so that they can be headed off before they become virulent.

Pest control products can also lose their effectiveness over time, and even when growers have access to them, the products may not provide the desired results. Here again the PMC steps in, looking ahead so that new minor-use pesticides and technologies will be available by the time the older ones are no longer useful.

Apple diseases

Julia Reekie, a MUPP test site manager at the AAFC research centre in Kentville, Nova Scotia, focuses on apple production. She sees apple scab and fire blight as two of the worst threats to this crop.

Fire blight is particularly virulent in apples and can be devastating for farmers who have a limited number of products for controlling it. Making the situation more challenging are the reported cases of resistance to the antibiotic streptomycin. As a result, Reekie notes, the PMC is funding projects to test the efficacy of several biocontrols for the disease. Apple growers must also be diligent if they want to control apple scab, the crop's most serious fungal disease. Scabby apples are unattractive, so consumers won't buy them, and selling the affected apples for juice pays very little.

With regulatory support from the PMC's Pesticide Risk Reduction Program (PRRP), three biopesticides — Blightban A506, Blightban C9-1, and Bloomtime — have been registered for the suppression of fire blight in apple and pear orchards. These products will help growers manage fire blight bacteria and help reduce their reliance on, and the development of their orchards' resistance to, streptomycin. The registration of these new biopesticides is another step towards ensuring that growers have the tools they need to manage priority pest problems.

Luckily, not all is lost for growers whose crops succumb to disease. Crop insurance can compensate them for up to 90 percent of their production, while growers without insurance can get help from the Canadian Agricultural Income Stabilization Program, which provides funding to soften the blow of extreme losses. These supports can help growers stay in business while the PMC looks for new controls that they can use against these problem pests.

Harmonizing Canada–U.S. Research

The AAFC has had a long history of cooperation with the U.S. IR-4 Project, which provides safe and effective pest management tools for American growers of specialty crops. It was this very successful relationship that ultimately led the AAFC to build the PMC along the lines of the IR-4 Project, and give it the responsibility of providing similar benefits for Canadian growers.

Since its inception in 2003, the PMC has been collaborating with the IR-4 on joint projects to allow the simultaneous registration of new pesticide uses in both Canada and the United States. Each year, about 15 such projects are undertaken in cases where priorities selected independently by U.S. and Canadian growers intersect. Both Canadian and American growers benefit from the joint projects by improving their access to the

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Needlecasts have recently become a serious problem for outdoor ornamentals such as Christmas trees and nursery stock. During the PMC's 2007 National Minor Use Priority Setting Workshop, needlecasts were selected as a priority project. However, since no controls are currently registered for the disease, the PMC is now carrying out screening trials of six potential needlecast fungicides. Trials in Nova Scotia are being conducted on balsam fir Christmas trees, and in Ontario on Colorado blue spruce. Most needlecast fungi follow a two-year or even three-year life cycle, so the results of these trials will be available shortly.

AAFC Research Facilities Receive Funds Aimed at Modernizing Labs

Seven AAFC research centres are benefiting from projects aimed at modernizing federal laboratories in Canada. The improvements will support AAFC's research in pest management, plant breeding and dairy cow management, and will help keep AAFC scientists on the cutting edge of research. Ultimately, these improvements will help both Canadian farmers and the industry.

The Modernizing Federal Laboratories Initiative is part of Budget 2009—Canada's Economic Action Plan. In it, the federal government committed to an accelerated investment program to provide $250 million over the next two years to address deferred maintenance at federal laboratories.

Two AAFC Research Centres are among the laboratories to receive funding:

The Horticulture Research and Development Centre in St-Jean-sur-Richelieu, Quebec, will invest $350,000 in modernizing its pesticide testing laboratory. These lab improvements will support the work done in St-Jean under the PMC's Minor Use Pesticide Program.

The Potato Research Centre in Fredericton, NB will receive $500,000 for the construction of a new potato gene facility that will enhance potato research capabilities. The retrofitted building will store the country's entire range of potato types, from newly developed to heritage varieties. This repository will meet international standards by providing a controlled climate and the required space and security. Researchers will be able to avail themselves of the samples in the repository to develop improved new varieties for target markets, for pest control, soil and water management, and for potato genomics and processing.

The Fight Against Emerging and Resistant Diseases

When Valdensinia leaf spot devastated blueberry crops in Nova Scotia in 2009, there was little that growers could do to defend themselves. There is currently no tested fungicide to eradicate the disease, and all a

grower can do is keep people and machinery out of infected areas so it can't spread by mechanical means.

It's in situations like this, when growers badly need new controls for emerging pests, that the PMC's vital role comes to the fore. Every March, it holds the Minor Use Priority Setting Workshop in Ottawa, where PMC staff, growers, researchers and pesticide company representatives meet to select the following year's regulatory projects.

If a pest is becoming extremely prevalent and destructive, the Provincial Minor Use Coordinators and grower groups may already have selected high-priority projects to deal with it, and these priorities may be used to guide the decisions that are taken at the March workshop. Rarely, however, does a priority project lead to a quick fix for the pest in question, since field trials, data collection, data analysis and the registration of a product can take several years. Often, as well, there may not be a proven product for an emerging disease. This is why the PMC has started to screen products for grower-prioritized, emerging threats, so that they can be headed off before they become virulent.

Pest control products can also lose their effectiveness over time, and even when growers have access to them, the products may not provide the desired results. Here again the PMC steps in, looking ahead so that new minor-use pesticides and technologies will be available by the time the older ones are no longer useful.

Apple diseases

Julia Reekie, a MUPP test site manager at the AAFC research centre in Kentville, Nova Scotia, focuses on apple production. She sees apple scab and fire blight as two of the worst threats to this crop.

Fire blight is particularly virulent in apples and can be devastating for farmers who have a limited number of products for controlling it. Making the situation more challenging are the reported cases of resistance to the antibiotic streptomycin. As a result, Reekie notes, the PMC is funding projects to test the efficacy of several biocontrols for the disease. Apple growers must also be diligent if they want to control apple scab, the crop's most serious fungal disease. Scabby apples are unattractive, so consumers won't buy them, and selling the affected apples for juice pays very little.

With regulatory support from the PMC's Pesticide Risk Reduction Program (PRRP), three biopesticides — Blightban A506, Blightban C9-1, and Bloomtime — have been registered for the suppression of fire blight in apple and pear orchards. These products will help growers manage fire blight bacteria and help reduce their reliance on, and the development of their orchards' resistance to, streptomycin. The registration of these new biopesticides is another step towards ensuring that growers have the tools they need to manage priority pest problems.

Luckily, not all is lost for growers whose crops succumb to disease. Crop insurance can compensate them for up to 90 percent of their production, while growers without insurance can get help from the Canadian Agricultural Income Stabilization Program, which provides funding to soften the blow of extreme losses. These supports can help growers stay in business while the PMC looks for new controls that they can use against these problem pests.

Harmonizing Canada–U.S. Research

The AAFC has had a long history of cooperation with the U.S. IR-4 Project, which provides safe and effective pest management tools for American growers of specialty crops. It was this very successful relationship that ultimately led the AAFC to build the PMC along the lines of the IR-4 Project, and give it the responsibility of providing similar benefits for Canadian growers.

Since its inception in 2003, the PMC has been collaborating with the IR-4 on joint projects to allow the simultaneous registration of new pesticide uses in both Canada and the United States. Each year, about 15 such projects are undertaken in cases where priorities selected independently by U.S. and Canadian growers intersect. Both Canadian and American growers benefit from the joint projects by improving their access to the

same pesticide uses and by enabling the export/import of the treated crops to both countries. In addition, the collaboration benefits both organizations through the sharing of information, training and research expertise.

Until three years ago, IR-4 staff took the lead when the PMC and the IR-4 worked on joint projects. This meant that all protocols for residue studies, laboratory analysis and the drafting of submissions were the responsibility of an IR-4 study director. However, since 2006, the PMC has assumed a much more active role and now leads some of these projects, a change that has brought a more equitable share of the tasks needed to generate data and to draft reports that will support regulatory submissions.

Successful collaboration between the two organizations requires a considerable degree of compatibility. To enhance this compatibility, the PMC and IR-4 have been working together to use the best practices of each group, and both organizations have been harmonizing their trial protocol, field notebook and final report templates. Harmonization has made it easier for researchers and regulators in both countries to work together, which in turn is leading to more efficiency and more joint registrations.

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- Frequently Asked Questions (FAQs), which clarify the work of the PMC;
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March 2–5, 2010
Fairmont Le Château Frontenac
Québec, Quebec

Biopesticides Selection Meeting
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Hampton Inn Ottawa & Conference Centre
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Effective January 2010 Jennifer Selwyn has accepted an assignment position with the PMC as Section Head of the Submission Team of the MUPP. In her new role Jennifer will work with the Entomology, Pathology, and Weed Science teams to facilitate and coordinate the submission process. In addition, Jennifer will play an integral part in the PMC/IR-4 harmonization process. Jennifer joins us from the PMRA where she was the Section Head of the Minor Use Assessment Section within the Health Evaluation Directorate. Her expertise and experience will be an asset to the submission and data coordination team and to the PMC.

Jean-François Dubuc has replaced Martin Trudeau as an acting principal investigator in the MUPP at the

Horticultural Research and Development Center (HRDC) in St-Jean-Sur–Richelieu. He holds a Master degree in forest entomology and has over 12 years of experience as a research assistant/technician in physiology, working on physiological disorder, plasticulture, irrigation and breeding projects on vegetables.

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2009/2010 Regulatory Submissions and Registrations

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Brussels sprout	Labelled Weeds	Poast Ultra	sethoxydim	AAFC03-017
Cucumber, greenhouse	Powdery mildew (*Sphaerotheca fuliginea*)	Switch 62.5 WG Fungicide	cyprodinil fludioxonil	AAFC05-026
Cucumber, greenhouse	Mold, Grey *(Botrytis cinerea)*	Decree	fenhexamid	AAFC10-022
Grass (Brome)	Labelled Weeds	Infinity	bromoxynil pyrasulfotole	AAFC10-019
Grass, fescue	Kochia Broadleaf Weeds (BLW)	Infinity	bromoxynil pyrasulfotole	AAFC10-018
Lettuce, field	Labelled Weeds	Poast Ultra	sethoxydim	AAFC08-003
Ornamental (Geraniums)	Growth regulation	Ethrel	ethephon	AAFC05-045
Strawberry	Labelled Weeds	Dual II Magnum	S-metolachlor	AAFC05-042
Strawberry	Labelled Weeds	Dual Magnum Herbicide	S-metolachlor	AAFC10-050

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Ornamental (Geranium)	Growth regulation	Ethrel	ethephon	AAFC05-045
Strawberry	Labelled Weeds	Dual II Magnum	S-metolachlor	AAFC05-042
Strawberry	Labelled Weeds	Dual Magnum Herbicide	S-metolachlor	AAFC10-050

Registrations October 1, 2009 to January 31, 2010

Crop	Pest(s)	Product(s)	Active Ingredient	Project Number
Asparagus	Asparagus Beetle	Success 480 SC	spinosad	AAFC03-099
Asparagus	Asparagus Beetle	Entrust 80W	spinosad	AAFC03-112
Bean, dry edible	Potato Leafhopper	Gaucho 480 FL	imidacloprid	AAFC05-015
Bean, succulent	Potato Leafhopper	Gaucho 480 FL	imidacloprid	AAFC05-016
Beet, sugar	Sugar Beet Root Maggot Wireworm	Cruiser 5FS	thiamethoxam	AAFC06-025
Bird's foot trefoil	Labelled Weeds	Odyssey WDG Herbicide	mazamox imazethapyr	AAFC08-008
Borage	Labelled Weeds	Poast Ultra	sethoxydim	AAFC03-042
Borage	Sclerotinia Stem Rot (*Sclerotinia sclerotiorum*)	Proline 480 SC	prothioconazole	AAFC08-067
Carrot	Labelled Weeds	Dual II Magnum	S-metolachlor	AAFC04-068
Carrot	Labelled Weeds	Dual Magnum Herbicide	S-metolachlor	AAFC09-062
Celery	Cercospora Leaf Spot, Septoria Leaf Spot	Lance WDG Fungicide Cabrio EG Fungicide	pyraclostrobin boscalid	AAFC04-014
Cherry	Plum curculio & oriental fruit moth	Clutch (50WDG)	clothianidin	AAFC04-076
Cherry	Growth regulation	ProGibb	gibberellic acid	AAFC05-029
Cherry	Aphids	Clothianidin WDG	clothianidin	AAFC07-034
Crops, greenhouse	Foliar Diseases (*Botrytis cinerea*)	RootShield HC	*Trichoderma harzianum Rifai*	PRR Program
Crops, greenhouse & field	Root Diseases (Pythium, Rhizoctonia, Fusarium)	RootShield HC	*Trichoderma harzianum Rifai*	PRR Program
Endive	Root rot (*Phytophthora cryptogea*) Phytophthora (*Phytophthora sp.*)	Aliette WDG	fosetyl-al	AAFC03-063
Geranium	Foliar Diseases (*Botrytis cinerea*)	RootShield HC	*Trichoderma harzianum Rifai*	PRR Program
Lettuce	Foliar Diseases (*Botrytis cinerea*)	RootShield HC	*Trichoderma harzianum Rifai*	PRR Program
Nectarine	Aphids	Clothianidin WDG	clothianidin	AAFC07-033
Nursery, outdoor	Root Diseases (Pythium, Rhizoctonia, Fusarium)	Root Shield Granules & HC	*Trichoderma harzianum Rifai*	PRR Program
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Ornamental (Outdoor)	*Peronospora parasitica, P.Violae, P. sparsa, P. Antirrhini & P. phlogina*	Acrobat 50 WP Fungicide	dimethomorph	AAFC06-022
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Peach	Plum curculio & oriental fruit moth	Clothianidin	clothianidin	AAFC04-074

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Peach	Aphids	Clothianidin WDG	clothianidin	AAFC07-032
Pepper	Aphids	Actara 25WG	thiamethoxam	AAFC08-161
Plum	Plum curculio & oriental fruit moth	Clutch (50WDG)	clothianidin	AAFC04-075
Prairie Carnation	Labelled Weeds	Centurion	clethodim	AAFC08-073
Radish	Downy mildew (*Peronospora spp.*)	Ridomil Gold 480EC	metalaxyl-m	AAFC03-006
Saskatoon	Entomosporium Leaf Spot (*Entomosporium mespili*) Gymnosporangium Rust (*Gymnosporangium nelsonii*)	Pristine WG Fungicide	pyraclostrobin boscalid	AAFC05-033
Spinach	Blossom blight (*Sclerotinia sp*)	Lance WDG Fungicide Cabrio EG Fungicide	pyraclostrobin boscalid	AAFC04-017
Spinach	Downy mildew (*Peronospora farinose f.sp. spinaciae*)	Ridomil Gold 480EC	metalaxyl-m	AAFC05-010
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Strawberry	Aphids, tarnished plant bugs & leafhoppers	Assail	acetamiprid	AAFC04-084
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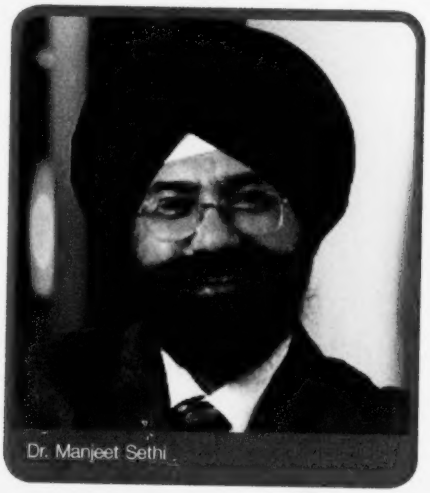
Dr. Manjeet Sethi

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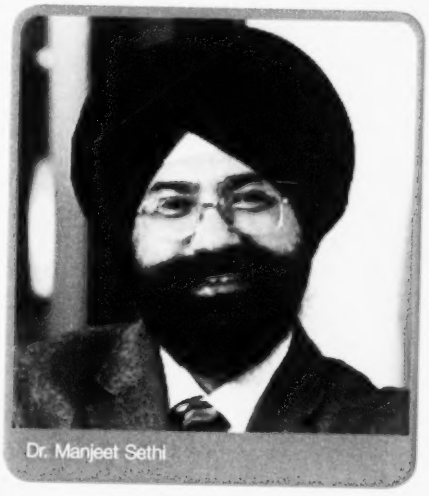

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In the fall 2009 newsletter, I conveyed to you that a number of changes were underway at the PMC, and that these were necessary so we could grasp new opportunities and build upon existing strengths within the organization. Ignoring change is not an option in times of rapid technological development and associated with evolving client requirements and needs.

For the past several months, PMC has evaluated and introduced internal changes designed to improve the crop protection support we offer to Canadian growers. As we recruit new, very specialized staff, teams are being aligned in the MUPP on the basis of disciplines such as pathology, entomology and weed science; we

intend to complete staffing by March 31, 2010. In addition, we have implemented learning and development opportunities that will improve the retention of our most vital asset, our highly technical personnel.

I also mentioned that the backlog of Minor Use projects would be addressed. In conjunction with the Provincial Minor Use Coordinators (PMUCs) and the PMRA, the PMC has developed an action plan to deal with our backlogged projects, and we are working vigorously to complete older, minor use label expansions alongside regular and new projects. I am happy to report that the action plan is on track and, as of January 31, 2010, 56 submissions have been made to either the Registrant for final submission or submitted directly to the PMRA.

Since 2005, the PRRP has provided regulatory support to improve Canadian growers' access to biopesticides. An initial consultation with stakeholders was used to identify a list of 15 priority products for registration or label expansion in Canada, and data packages for most of these have now, with the help of the PRRP, been submitted to Health Canada for registration. The PRRP is also looking at instituting an annual process to select new priorities for regulatory support work on biopesticides, a process that will provide stakeholders with an opportunity to participate.

In March 2010 a workshop to select these biopesticide priorities will be held in conjunction with the Minor Use Priority Setting Meeting in Ottawa. Available for selection will be biopesticide solutions for high-priority issues, both for first registration in Canada and for label expansion of currently registered products.

The PMC continues to draw on the expertise and advice of its Advisory Committee and Technical Working Groups. Meetings and teleconferences were held with these groups during the summer and fall of 2009. Part of the summer meeting included sessions with our U.S. counterpart, the IR-4 Project, to further the cooperative efforts on joint trials and to move toward harmonization and joint submissions to both the PMRA and the EPA.

Until the next time.....

About the Pest Management Centre

Agriculture and Agri-Food Canada (AAFC) established the Pest Management Centre (PMC) in 2003 to implement the Pesticide Risk Reduction Program (PRRP) and Minor Use Pesticides Program (MUPP).
The PRRP focuses on the development of risk reduction strategies for the Canadian agriculture and agri-food sector, while the MUPP responds to the needs of Canadian minor crop growers for increased access to new minor uses of pesticides. The PMC operates from its headquarters in Ottawa and at nine research centres (Kentville, Nova Scotia; Bouctouche, New Brunswick; Saint-Jean-sur-Richelieu, Quebec; Vineland, Ontario; Delhi, Ontario; Harrow, Ontario; Scott, Saskatchewan; Summerland, British Columbia; and Agassiz, British Columbia) where field, greenhouse and growth chamber trials are conducted.

For more information about the PMC, please visit our website at www.agr.gc.ca/prrmup

Contact Information

For more information about any of the items in this issue of the newsletter, please contact the PMC via email at pmc.cla.info@agr.gc.ca or call 613-694-2457.

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